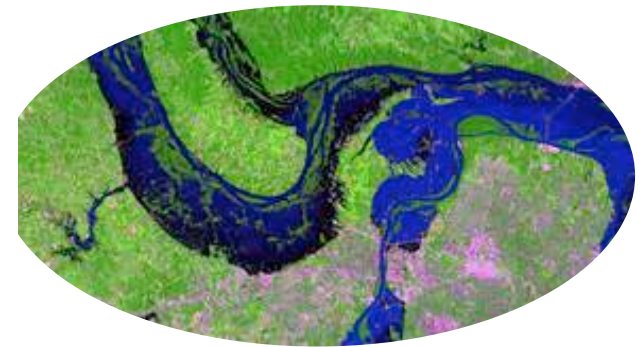
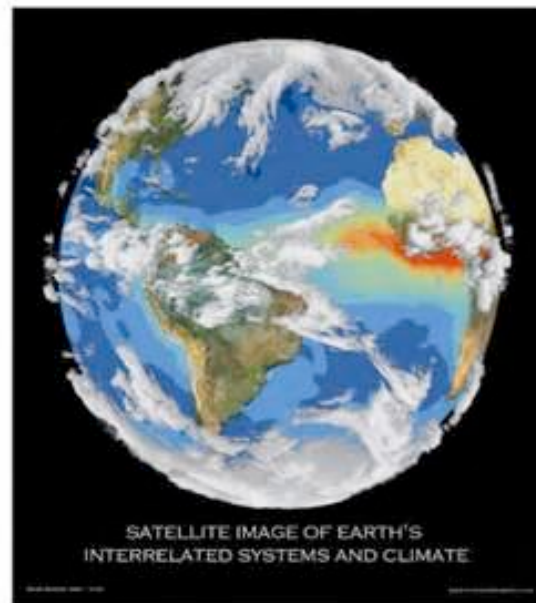


NASA Applied Remote Sensing Training ARSET



Welcome to NASA ARSET Training on Climate Variability, Hydrology, and Flooding



Ciencias Terrestres de la NASA

Áreas de Aplicaciones del Programa de Ciencias Aplicadas



Disasters



**Ecological
forecasting**



**Health and Air
Quality**



Water Resources



Agriculture



Climate



Energy



Oceans



Meteorology

NASA Applied Remote Sensing Training (ARSET)

<http://arset.gsfc.nasa.gov>

GOAL: Increase utilization of NASA observational and model data for decision-support through training activities for environmental professionals.

Online Trainings: Live and recorded, 4-6 weeks in length. Include demos on data access

In person Trainings: In a computer lab, 2- 4 days. Large focus on data access

Train the Trainers: Courses and training manuals for those interested in conducting their own remote sensing training.

Application Areas: water resources, disasters, health/air quality, wildfires, and land management.



Accomplishments (2009 – 2014)

- 48 trainings completed
- 2500+ participants worldwide
- 800+ Organizations

ARSET

Online and Hands-on Trainings:

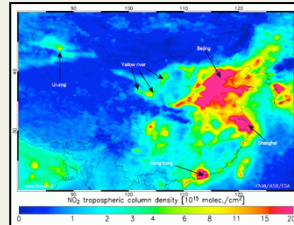
- **Who:** policy makers, environmental managers, modelers and other professionals in the public and private sectors.
- **Where:** U.S and internationally
- **When:** throughout the year. Check websites.
- **Do NOT require prior remote-sensing background.**
- Presentations and hands-on guided computer exercises on how to access, interpret and use NASA satellite images for decision-support.



NASA Training for California Air Resources Board, Sacramento

Health (Air Quality)

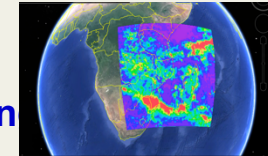
- 2008 – present
- 33 Trainings
- 1000+ end-users
- Analysis of dust, fires and urban air pollution.
- Long range transport of pollutants
- Satellite and regional air quality model inter-comparisons.
- Support for air quality forecasting and exceptional event analysis



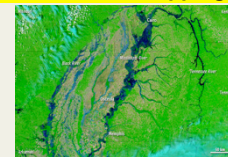
Water Resources and Flood Monitoring

- April 2011 – present
- 11 Trainings
- 1200+ end-users
- Flood/Drought monitoring
- Severe weather and precipitation
- Watershed management
- Climate impacts on water resources
- Snow/ice monitoring
- Evapotranspiration (ET), ground water, soil moisture, and runoff.

Satellite derived precipitation

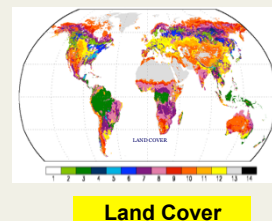


Inundation mapping



Land Management

- Launched in 2014
- 2 Trainings, +300 end-users
- GIS Applications
- Vegetation indices
- Fire products (beginning in 2015)



Train the Trainers (Starting in 2015)

- Courses and guidance on how to design and develop, *YOUR OWN* online and/or computer based remote sensing training
- How to develop effective presentations and exercises.

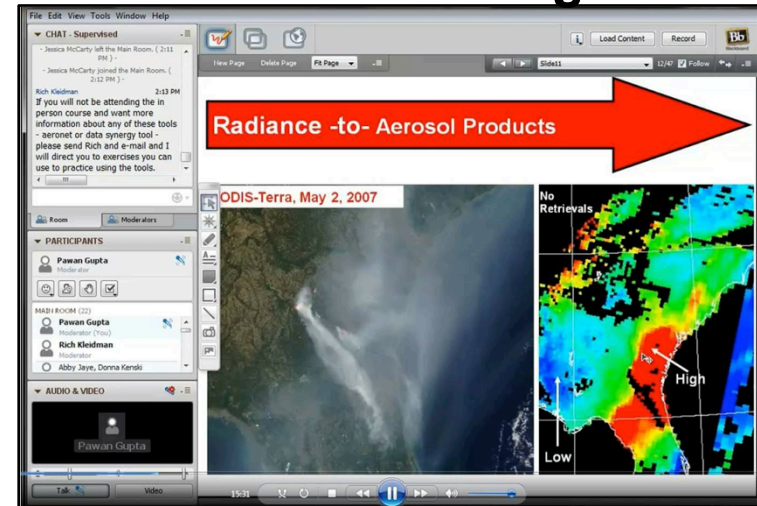
Gradual Learning Approach

Online Training

Basic Training
Webinars
Hands-on
Assumes no prior knowledge of RS

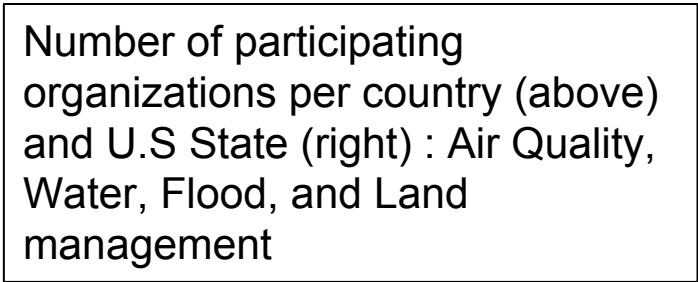








Advanced Training
Hands-on
Webinar course generally required
Focused on a specific application/
problem/Data: for example **flood**
monitoring in a specific country or
region

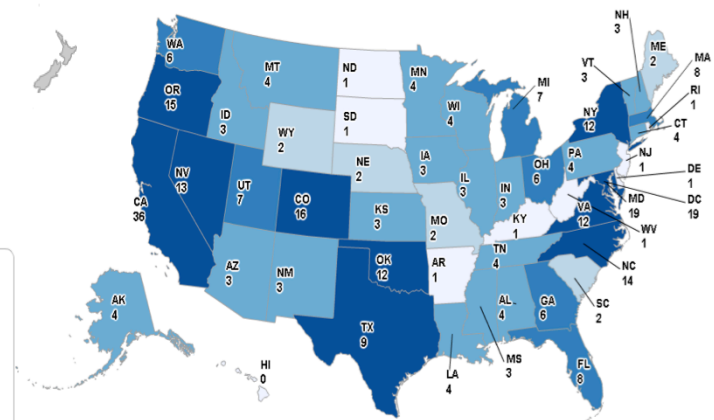


In-Person Training





 > 8
 5 - 8
 3 - 5
 2 - 3
 < 2
 No data



ARSET Website

<http://arset.gsfc.nasa.gov/>

The screenshot shows the ARSET website interface. At the top, there is a NASA logo and the text "ARSET Applied Remote Sensing Training". Below this is a navigation bar with links for "DISASTERS", "ECO FORECASTING", "HEALTH & AIR QUALITY", and "WATER RESOURCES". A red box highlights a dropdown menu with the following items: "ARSET", "Webinars", "Workshops", "Apply for Training", "Personnel", "Links", and "Upcoming Webinar". A red arrow points from this menu to a larger, detailed view of the menu items on the left side of the page.

ARSET

Webinars

Workshops

Apply for Training

Personnel

Links

Upcoming Webinar

Applied Remote Sensing Training

The goal of the NASA Applied Remote Sensing Training (ARSET) is to increase the utility of NASA earth science and model data for policy makers, regulatory agencies, and other applied science professionals in the areas of Health and Air Quality, Water Resources, Eco Forecasting, and Disaster Management.

The two primary activities of this project are webinars and in-person courses.

Webinars (Free)

Webinars are offered throughout the year in all four application areas, generally 4-5 weeks in duration, 1 hour per week. They are intended for those new to remote sensing. For more information and to register please go to the webinars section of the website.

In-Person Courses

ARSET in-person courses are a combination of lectures and computer hands-on activities that teach professionals how to access, interpret, and apply NASA data at regional and global scales with an emphasis on case studies. ARSET works with organizations who will host the training for groups within their geographical region, tailoring the curriculum to the needs of the projected participants. NASA does not charge an attendance fee, but attendees must make their own arrangements to travel to the course meeting location.

Skills Taught:

- Search, access, and download of NASA data products and imagery
- Appropriate use and interpretation of satellite imagery.
- Visualization and analysis of NASA imagery using NASA, EPA, and NOAA webtools and other resources such as GIS, Google Earth, Panoply, RSIG, and HDFLook

ARSET is sponsored by the Applied Sciences Program within NASA's Earth Sciences Division. We would like to thank Nancy Searby, Applied Sciences' Capacity Building Program Manager for her support of this project.

Last updated: August 18, 2014
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Webmaster: Susannah Pearce
Curator: Ana Prados

- Sciences and Exploration
- Atmospheric Laboratory
- Hydrospheric & Biospheric Laboratory

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- Site Map
- Privacy Policy and Important Notices

Access to ARSET Trainings

<http://arset.gsfc.nasa.gov>

The screenshot shows the ARSET website interface. At the top, a navigation bar includes the NASA logo, the ARSET logo, and a menu with links to DISASTERS, ECO FORECASTING, HEALTH & AIR QUALITY, and WATER RESOURCES. Below this, a sidebar on the left contains a list of links: ARSET, Webinars, Workshops, Apply for Training, Personnel, Links, and Upcoming Webinar. The main content area is divided into two columns. The left column is titled 'Applied Remote Sensing Training' and contains text about the program's goals and activities. The right column is titled 'Webinars' and lists two training events. A red circle highlights the 'Webinars' link in the sidebar, and a red arrow points from it to the 'Webinars' section header. Another red circle highlights the 'Webinars' link in the top navigation bar, and a red arrow points from it to the 'Webinars' section header. A third red circle highlights the 'Webinars' link in the bottom navigation bar, and a red arrow points from it to the 'Webinars' section header.

ARSET

Webinars

Workshops

Apply for Training

Personnel

Links

Upcoming Webinar

DISASTERS **ECO FORECASTING** **HEALTH & AIR QUALITY** **WATER RESOURCES**

Webinars

NASA Earth Observations and Tools for Air Quality Applications in South East Asia

Wednesday, April 1, 2015 to Wednesday, April 29, 2015
Application Area: **Airquality**
Keywords: **Aerosols, Air Pollution, Dust, Fires and Smoke, PM2.5, Satellite Imagery, Smoke, Trace Gases**
Instruments/Missions: **CALIPSO, MISR, MODIS, VIIRS**

Read more

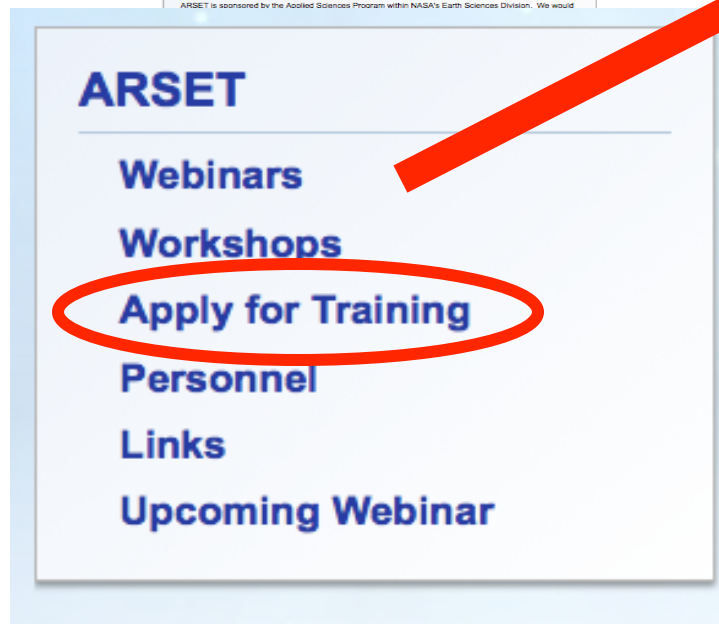
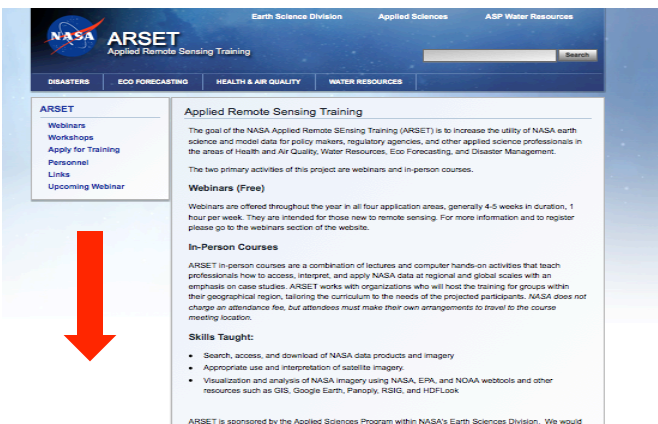
Introduction to Global Precipitation Measurement (GPM) Data and Applications

Tuesday, March 17, 2015 to Tuesday, March 31, 2015
Application Area: **Disasters, Water Resources**
Keywords: **Flooding, Satellite Imagery, Tools**
Instruments/Missions: **GPM, TRMM**

Read more

Request a Training

<http://arset.gsfc.nasa.gov>



Apply for Training

The NASA Applied Remote Sensing Training Program provides webinars and in-person courses. The goal of these training activities is to build the capability and skills to utilize NASA earth science observations and model data for environmental management and decision-support. Courses are primarily intended for applied science professionals and decision makers from local, state, federal agencies, NGOS, and the private sector. ARSET also offers a Train the Trainers program, which is recommended for establishing or growing your organizations' capacity in applied remote sensing.

ARSET trainings are NOT designed for research but for operational and application driven organizations.

To apply for a training email Ana Prados at Ana.I.Prados@nasa.gov

The program offers four types of courses. For in-person courses, applicants must provide a computer laboratory or similar facility.

1. Overview webinar course: held over a period of 4-5 weeks, 1 hour per week
2. Basic hands-on: In person applied remote sensing course for those new to remote sensing. Generally 2-3 days in length held. It is highly recommended that attendees first take the webinar course.
3. Advanced hands-on: In person applied remote sensing course that builds the skills to use NASA data for a specific environmental management problem. Intended for those who have already taken the basic course or have previous experience using NASA data and resources. Generally 1-2 days in length.
4. Train the Trainers: In person applied remote sensing course intended for existing remote sensing/geospatial trainers within the organization/institution/agency.

ARSET ListServ

**For information on upcoming courses and
program updates sign up to the listserv**

<https://lists.nasa.gov/mailman/listinfo/arset>